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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

| EXAMINER | |
|---|---|
| WILLIAMS, JEFFERY L | |

| ART UNIT | PAPER NUMBER |
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| 2437 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/575,290 | VAN DE KERKHOF ET AL. | |
| | Examiner | Art Unit | |
| | JEFFERY WILLIAMS | 2437 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *31 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

Claims 1 – 27 are pending.

This action is in response to the communication filed on 10/31/08.

All objections and rejections not set forth below have been withdrawn.

### *Specification*

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The specification fails to provide proper antecedent basis for the recitation of *"a computer-readable medium having recorded thereon a computer program enabling a processor to carry out …"*.

### *Claim Rejections - 35 USC § 112*

**The following is a quotation of the first paragraph of 35 U.S.C. 112:**

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claim 27 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject

matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has not pointed out where the new (or amended) claim is supported, nor does there appear to be a written description of the claim limitations in the application as filed (see above objection to the specification).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 21 recites the limitation *"and wherein said signal distribution means further comprises means for distributing the plurality of signals* " in line 7. There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination, the examiner presumes the applicant to recite *"and means for distributing the plurality of signals".*

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1 – 3, 6 - 20, 23 – 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Regarding claims 1 – 3, 6 - 20 and 23 – 25, they are rejected as they are directed to a system implemented as software (e.g. see applicant's specification, pg. 16, par. 1). Software per se. fails to fall within any one of the statutory categories of invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 – 9, 11, 16 – 22, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Gunji et al. (Gunji), "Digital Audio System", U.S. Patent Publication, 2002/0002412 A1.**

Regarding claim 1, Gunji discloses:

*means for receiving a signal* (fig. 4:15; fig. 13:15);

*a pre-encoder for pre-encoding the signal to generate a pre-encoded signal* (fig. 9:10; fig. 4:22; fig. 13:22; par. 45; 46); and

*a watermark processing means comprising* (fig. 9):

*a decoder for decoding the pre-encoded signal to generate a decoded signal* (fig. 9:11);

*a watermark embedder for inserting a watermark in the decoded signal to generate a watermarked signal* (fig. 9:18); and

*a re-encoder for re-encoding the watermarked signal to generate a watermarked encoded signal* (fig. 9:22),

*wherein the pre-encoder generates encoding assistance data* (fig. 3:f; par. 47 – 50, 53 – herein an encoder ["pre-encoder"], creates a signal comprising audio data and encoding parameters, "assistance data"), *and the re-encoder re-encodes the watermarked signal in response to the encoding assistance data* (par. 45, 46, 74, 75 – herein the signal comprising the coding parameters may be re-encoded by an encoder ["re-encoder"] using the coding parameters received and detected within the signal, furthermore the re-encoded signal is watermarked).

Regarding claim 2, Gunji discloses:

*wherein the pre-encoder includes the encoding assistance data in the pre-encoded signal* (par. 51, 52).

Regarding claim 3, Gunji discloses:

*wherein the pre-encoder includes the encoding assistance data in at least one ancillary data section of the pre-encoded signal* (par. 50).

Regarding claim 4, Gunji discloses:

*storage means for storing the pre-encoded signal* (fig. 13:10).

Regarding claim 5, Gunji discloses:

*wherein the storage means stores the encoding assistance data* (fig. 3:f; fig. 13:10 – herein it is noted that encoded data includes encoding assistance data and the encoded data is stored in memory).

Regarding claim 7, Gunji discloses:

*wherein the encoding assistance data comprises encoding quantization control data* (par. 17, 48, 49, 55).

Regarding claim 8, Gunji discloses:

*wherein the encoding assistance data comprises encoding scale factor data* (par. 49, 50).

Regarding claim 9, Gunji discloses:

*wherein the encoding scale factor data comprises a scale factor offset associated with a scale factor offset value between a first encoding rate and a second encoding rate* (par. 49, 50).

Regarding claim 11, it is rejected because, as best understood by the examiner, Gunji discloses scale factor values as required by claim 8.

Regarding claim 16, Gunji discloses:

*wherein the encoding assistance data comprises perceptual model data* (par. 7, 54) .

Regarding claim 17, Gunji discloses:

*wherein the re-encoder operates frame aligned with the pre-encoder* (par. 51, 52, 57, 58).

Regarding claims 18 - 20, Gunji discloses:

*wherein the received signal is an audio signal; wherein the pre-encoded signal is pre-encoded in accordance with an MPEG audio compression standard; wherein the received signal is a video signal* (par. 71, 72).

Regarding claim 21, Gunji discloses:

*wherein the pre-encoder pre-encodes a multiplicity of signals; the storage means stores the multiplicity of signals and the watermark processing means individually embeds a watermark in a plurality of signals, and wherein said signal distribution means further comprises means for distributing the plurality of signals* (Abstract, par. 7 – 9, herein Gunji discloses that the invention is operable respecting more than one signal).

Regarding claims 22 and 27, they comprise method, program, and medium recitations, essentially similar to claim 1, and they are rejected, at least for the same reasons as claim 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 6, 10, 12 – 15, and 23 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunji in view of Katayama et al. (Katayama), "Coding Device, Coding Method, Program and Recording Medium", U.S. Patent Publication 2002/0034376 A1.**

Regarding claims 23 and 26, they are rejected, at least, for the same reasons as claim 1. Furthermore, Gunji discloses a means to encode a signal at a first encoding rate, means for generating encoding assistance data, and means for utilizing the encoding assistance data to re-encode the signal (Gunji, fig. 4:15; fig. 13:15, par. 50). Gunji, however, does not appear to explicitly recite that the generated encoding assistance data includes "scale factor offset data" for re-encoding a signal at a second encoding rate.

Katayama discloses that an encoder may include encoding assistance data comprising "scale factor offset data" for enabling a re-encoder to encode the signal at a second encoding rate (Katayama, par. 10 - 12).

It would have been obvious to one of ordinary skill in the art to employ the methods of Katayama within Gunji. This would have been obvious because one of ordinary skill in the art would have been motivated by the flexibility to efficiently utilize encode signals on a systems with different bandwidth characteristics (Katayama, par. 4 – 6).

Regarding claims 23 and 24, the combination enables:

*wherein the pre-encoder includes the encoding assistance data in the pre-encoded signal; wherein the pre-encoder is operable to replace the scale-factors of the pre-encoded signal by a shifted version of the scale-factors of the second encoding rate* (Katayama, par. 10-12).

Regarding claims 6, 10, 12 - 15, they comprise essentially similar recitations as claims 23 – 26, and they are rejected, at least, for the same reasons as claims 23 - 26.

***Response to Arguments***

Applicant's arguments filed 10/31/08 have been fully considered but they are not persuasive.

Applicant argues or asserts essentially that:

(i) *Applicants submit that the Examiner is in error. While the subject* ***invention*** *"can be implemented in any suitable form including hardware, software, firmware or any combination of these", it is a well-established practice in preparing a patent specification to include several embodiments in the specification. To this extent, the specification covers the invention embodied in software. Applicants submit that this is statutorily claimed in, for example, claim 27 which claims a computer-readable medium containing the "software program". However, the noted claims relate to the hardware implementation. As such, Applicants submit that claims 1-3, 6-20 and 23-25 are indeed statutory.* (Remarks, pg. 11, 12)

In response, the examiner respectfully notes that the rejected claims fail to reflect any hardware implementation. It is noted that the features upon which applicant relies

(i.e., *the noted claims relate to the hardware implementation*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

(ii) *First, Applicants would like to point out that the Examiner has identified the pre-encoder and the re-encoder of the claimed invention as the same structure, i.e., the MPEG audio encoder 22. Hence, it is quite clear that elements being disclosed by Gunji et al. are not arranged as required by the claim.* (Remarks, pg. 13)

In response, the examiner respectfully notes that the applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Namely, Applicant asserts the existence of a specific arrangement but fails to provide supporting evidence or rational of any specific arrangement.

Furthermore, regarding the applicant's allegation that the prior art fails to anticipate a specific and structural arrangement, the examiner respectfully notes that neither the applicant's arguments nor the applicant's own specification support such a conclusion (e.g. Specification, pg. 16, par. 1, 2).

(iii) *Applicants submit that careful reading of the above paragraphs will reveal that Gunji et al. contemplates the generation of coding parameters in the decoder ii of audio unit 1 and transferring these coding parameters to the encoder 22 of audio unit 2. However, as indicated in claim i, the encoding assistance data is generated by the pre-encoder, while the re-encoder uses this encoding assistance data in re-encoding the watermarked signal.* (Remarks, pg. 14)

In response, the examiner respectfully notes that the applicant appears mistaken. Specifically, the prior art shows that a decoder may release the "encoding assistance data" (Gunji, par. 76), however, it is an encoder that generates the “encoding assistance data” (e.g. see Gunji, par. 50; fig. 4:35).

(iv) *However, Applicants submit that the means for encoding and the means for utilizing the encoding assistance data to re-encode are indicated by the Examiner as being the same means (item 22). Hence, either there is no initial pre-encoding as in the claims or there is no re-encoding, again as in the claims.* (Remarks, pg. 16)

In response, the examiner respectfully notes that the prior art clearly shows that an encoder can both “pre-encode” and “re-encode”, otherwise known as “encoding” (e.g. see Gunji, par. 56). While the applicant appears to allege the contrary (i.e. there is no encoding means to “encode” and encoding means to “pre-encode”), the examiner notes that the applicant's conclusion is neither supported by evidence or rational.

Furthermore, the applicant's argument does not appear in harmony with the applicant's own disclosure (e.g. Specification, pg. 16, par. 1, 2).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

***See Notice of References Cited.***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery Williams whose telephone number is (571) 272-7965. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Williams
AU 2437

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2437